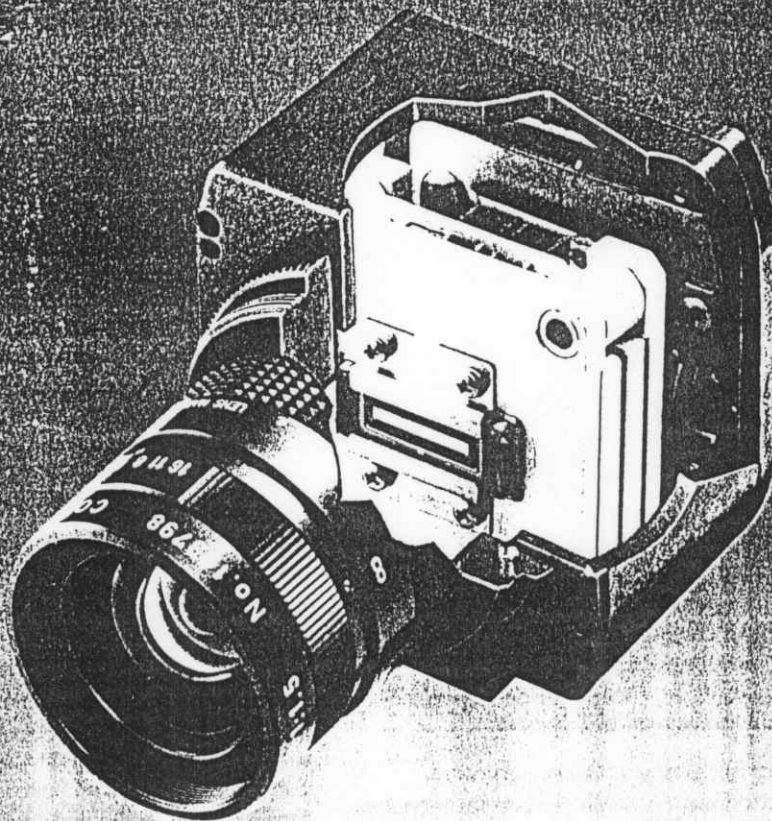


Solid State Cameras



velco s.r.l.

Contrà S. Francesco, 75

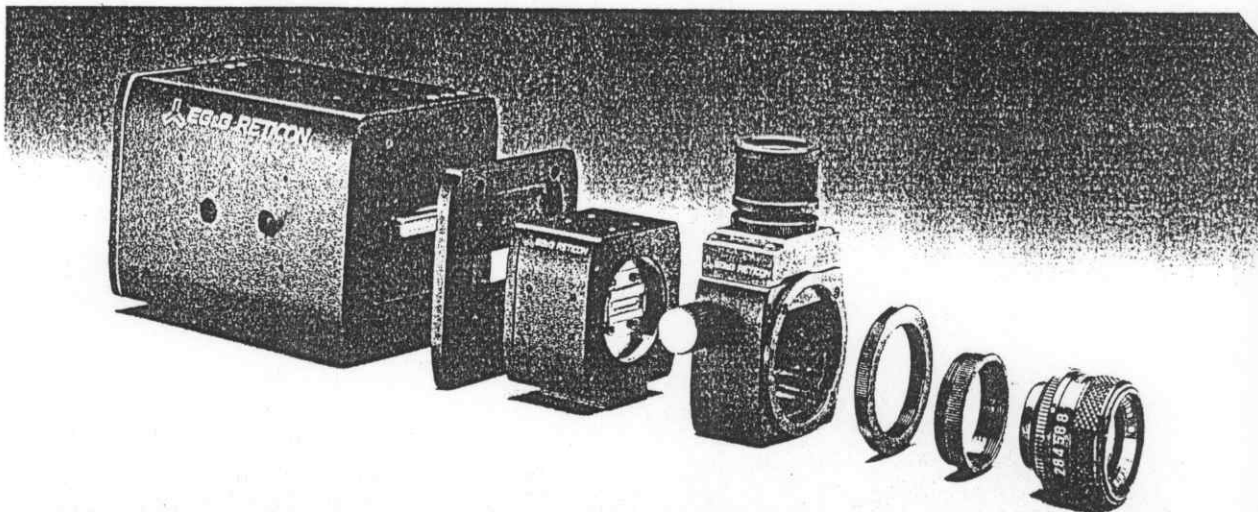
36100 VICENZA Italy

Telex 431075 VELCO I

Tel. 0444/922922 (Pbx)

Telefax: 0444/922338

 **EG&G RETICON**



Reticon's Modular System showing the MB1900 Formatter, the LC1901 Line Scan Camera, the Through-The-Lens Viewer and accessories.

Reticon's Modular Advantage

Since its founding in 1971, Reticon has been dedicated to the advancement of electronic imaging technology, innovative products, unsurpassed performance, and outstanding value have made EG&G Reticon the leader in solid state camera technology. And, listening to your needs is keeping us there.

You wanted more than an electronic camera; you wanted a solid state imaging system wrapped in a nearly indestructible package. We designed the LC1900 series cameras which could well be the most rugged line scan cameras ever built.

You demanded precise performance and reliability. All EG&G Reticon modular cameras contain hybridized electronics that are customized for the ultimate in performance and reliability, and the optical characteristics of these cameras are the best in the business.

Modularity is a major advantage of Reticon cameras. Reticon's modularity concept is simple — provide modular, interchangeable building blocks which can be combined to produce just the right level of performance needed. Complete imaging systems can be built to suit any application simply by selecting the appropriate modules. Every camera within this modular family can be interchanged with any other. Even the accessories can be mixed and matched to achieve the exact level of performance needed.

LC1900 Modular Line Scan Camera Family

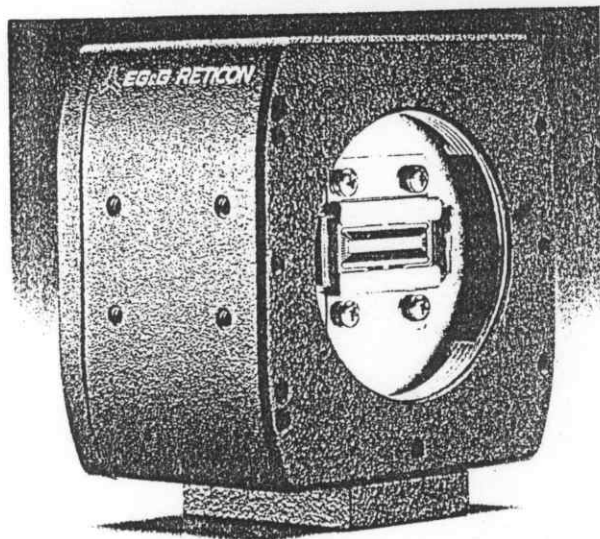
LC1900 modular line scan cameras are constructed to operate and survive in harsh industrial environments while delivering the performance and precision required in the laboratory. Every detail has been considered. Even the interconnection elements within the cameras are revolutionary shock absorbing elastomeric conductors to withstand punishing shock and vibration. All control signals to and from the camera are via RS422A differential line pairs for superior noise immunity. Add to that hybridized electronics for the ultimate in reliability, and the best linear image sensors in the business, and you have the LC1900 series cameras.

All LC1900 series cameras contain the latest technological innovation in image sensors, the Charge Coupled Photodiode array (CCPD). This device combines the superior performance of photodiode sensor elements with the high speed of the CCD. The result is a device with high sensitivity, outstanding spectral response, and extremely fast readout speed. In addition, antiblooming structures within the array allow operation under lighting conditions that would render other sensors useless. These cameras are available with resolution from 256 to 2048 elements per line.

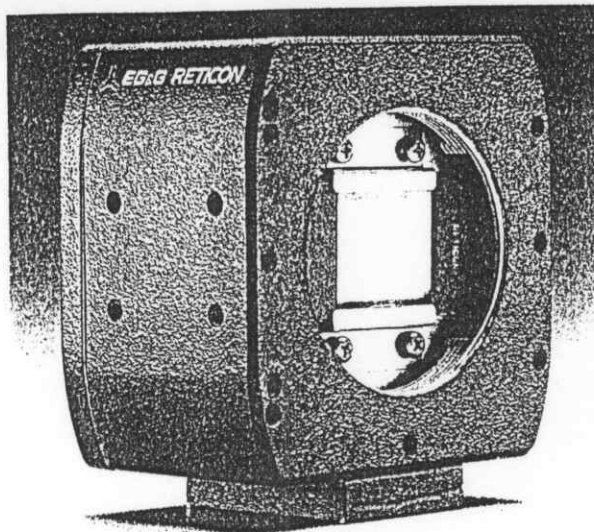
LC1902

The LC1902 modular line scan camera is very fast with guaranteed operation up to 20 MHz. It has features never before seen in a line scan camera such as antiblooming circuitry, line reset capability, and an exacting optical sensor alignment referenced to precision registration holes. It contains two custom hybrid microcircuits which precisely control the image sensor and produce superb video quality.

Video is provided in a two channel time-division-multiplexed format which allows for efficient data acquisition with low cost components. Other features include low power consumption, excellent uniformity, low dark current, efficient heat transfer from the electronics to the case, digital control over camera speed and pixel integration time, and precise optical alignment.



The LC1902 20 MHz line scan camera.



Reticon's MC9256 area scan camera.

LC1901

The LC1901 modular line scan camera is the newest member of Reticon's modular camera family. It features a single channel of analog video with operation up to 10 MHz which makes it an ideal choice for use with computer interface products. Video is sampled and held and presented to the user in a differential analog format which provides immunity to contamination by unwanted electrical noise. The LC1901 camera has the same features as the LC1902 camera.

MB1900 Video Data Formatter

The MB1900 Video Data Formatter is a rugged high performance video processing and interface module for the LC1902 line scan camera. It contains a versatile system of functional building blocks that can be combined to produce the precise signal processing and system interface requirements for the most demanding image acquisition applications.

The MB1900 provides all of the necessary power and timing signals required for efficient camera operation in a convenient and easy to use module. The unit processes analog video into a single channel of serial, sampled-and-held video and outputs it to the user in a differential format for superior transmission quality and interference immunity. All digital signal communications are through RS422A differential line pairs for maximum noise immunity.

An internal bus structure is used in the MB1900 to communicate between up to seven plug-in functional modules including optional signal processing modules, custom boards, and future enhancements.

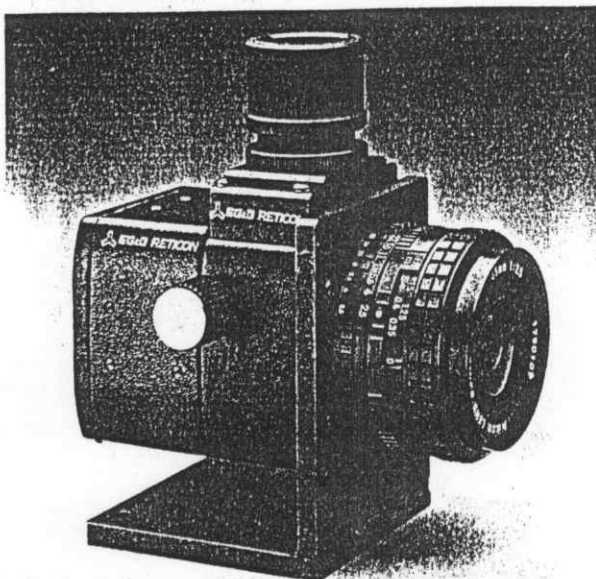
MC9000 Area Cameras

The MC9000 series cameras feature very high-speed operation with frame rates to more than ten times that of ordinary RS170A format cameras. They are intended primarily for machine vision and scientific data acquisition applications.

The MC9000 camera family features a revolutionary sensor architecture which allows fast access of selected lines of pixel data anywhere within the array. The readout method, known as "fast row clocking", allows the user to skip over the unwanted rows of information and select only specific rows of interest. To achieve the same level of performance, a typical RS170A type camera would have to operate with clock frequencies close to 180 MHz.

These cameras permit asynchronous frame reset to synchronize integration to external events or to electrically "shutter" the camera. A start inhibit control allows camera operation to be halted to allow long exposure periods without sacrificing very high readout speed after image acquisition.

The MC9000 cameras are also available with fiber optic sensors for specialized applications. An intensifier module is available for applications that require extremely low light levels or extremely fast integration times.



Reticon's compact modular camera on mounting bracket.

Seventeen years experience in the design and manufacture of solid state imaging products at Reticon has culminated in a line of camera products which are truly ruggedized precision electro-optical instruments.

Performance, quality, reliability, and value make Reticon cameras the choice of scientists, engineers, and technical professionals around the world. When you need a camera, use the best. Use EG&G Reticon.

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Direct Sales

Western Regional Sales

345 Potrero Avenue
Sunnyvale, CA 94086
408 245-2060
TWX: 910-339-9343
FAX: 408 738-6979

Central Regional Sales

2260 Landmeier Rd., Suite J
Elk Grove Village, IL 60007-2693
312 640-7785
FAX: 312 364-7079

Eastern Regional Sales

35 Congress Street
Salem, MA 01970-6529
508 745-7400
TWX: 710-347-1521
FAX: 508 741-4583

Mid-Atlantic Sales

221 Commerce Drive
Montgomeryville, PA 18936
215 368-4003
FAX: 215 362-6107

So. California Sales

23832 Rockfield Rd., Suite 235
El Toro, CA 92630-2896
714 583-2250
FAX: 714 583-2277

United Kingdom Sales Office

EG&G Reticon
34/35 Market Place
Wokingham
Berkshire
RG11 1AT
England
Tel: 0734 788666
Telex: 847510 EGGUK
FAX: 0734 774561

European Sales Office

EG&G Reticon
Hohenlindener Str. 12
8000, Munich 80
West Germany
Tel: 089 92692-666
Telex: 5218177 RTCN D
FAX: 089 436 25 45

Contact the nearest direct sales office
for the name of the sales representative
or distributor in your area.



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